

/ DATE: 02/06/2002

PCT09

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TIME: 14:18:36
                     PATENT APPLICATION: US/09/743,107A
                     Input Set : A:\003300-723.ST25.txt
                     Output Set: N:\CRF3\02062002\1743107A.raw
      4 <110> APPLICANT: Hanson, Lars A.
             Baltzer, Lars
     6
             Mattsby-Baltzer, Inger
     7
             Dolphin, Gunnar T.
     9 <120> TITLE OF INVENTION: Peptides Based on the Sequence of Human Lactoferrin
     10
             and Their Use
     12 <130> FILE REFERENCE: 003300-723
     14 <140> CURRENT APPLICATION NUMBER: US 09/743,107A
Q√> 15 <141> CURRENT FILING DATE: 2001-09-13
     17 <150> PRIOR APPLICATION NUMBER: PCT/SE99/01230
     18 <151> PRIOR FILING DATE: 2000-09-29
     20 <150> PRIOR APPLICATION NUMBER: SE 9802441-7
                                                               ENTERED
     21 <151> PRIOR FILING DATE: 1998-07-06
     23 <150> PRIOR APPLICATION NUMBER: SE 9802562-0
     24 <151> PRIOR FILING DATE: 1998-07-17
     26 <150> PRIOR APPLICATION NUMBER: SE 9804614-7
     27 <151> PRIOR FILING DATE: 1998-12-29
     29 <160> NUMBER OF SEQ ID NOS: 100
     31 <170> SOFTWARE: PatentIn version 2.1
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    34 <211> LENGTH: 25
     35 <212> TYPE: PRT
     36 <213> ORGANISM: Artificial Sequence
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    39 <221> NAME/KEY: MOD_RES
    40 <222> LOCATION: (1)
    41 <223> OTHER INFORMATION: ACETYLATION
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    44 <221> NAME/KEY: PEPTIDE
    45 <222> LOCATION: (1)
     46 <223> OTHER INFORMATION: Amino acid 1 is Xaa wherein Xaa = Glu or no amino acid.
     48 <220> FEATURE:
     49 <221> NAME/KEY: PEPTIDE
     50 <222> LOCATION: (2)
     51 <223> OTHER INFORMATION: Amino acid 2 is Xaa wherein Xaa = Ala or no amino acid.
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     54 <221> NAME/KEY: PEPTIDE
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     56 <223> OTHER INFORMATION: Amino acid 5 is Xaa wherein Xaa = Cys or Ala.
     58 <220> FEATURE:
     59 <221> NAME/KEY: PEPTIDE
     60 <222> LOCATION: (7)
     61 <223> OTHER INFORMATION: Amino acid 7 is Xaa wherein Xaa = Gln or Lys.
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RAW SEQUENCE LISTING

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                     Input Set : A:\003300-723.ST25.txt
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     63 <220> FEATURE:
     64 <221> NAME/KEY: PEPTIDE
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     66 <223> OTHER INFORMATION: Amino acid 11 is Xaa wherein Xaa = Asn or Asp.
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     69 <221> NAME/KEY: PEPTIDE
     70 <222> LOCATION: (17)..(25)
     71 <223> OTHER INFORMATION: Amino acids 17-25 are Xaa wherein Xaa = Gly, Pro, Pro, Val,
Ser,
              Cys, Ile, Lys, Arg
     72
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     76 <222> LOCATION: (25)
     77 <223> OTHER INFORMATION: AMIDATION
     79 <220> FEATURE:
     80 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or artificial
              origin, corresponding to modification of the sequence
     81
              consisting of aa 16-40 in human lactoferrin
     82
     84 <4,00> SEQUENCE: 1
    86 Xaa Xaa Thr Lys Xaa Phe Xaa Trp Gln Arg Xaa Met Arg Lys Val Arg
                                             10
     87 1
     89 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     90
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     100 <223> OTHER INFORMATION: ACETYLATION
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     108 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
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     109
               of the sequence consisting of amino acids 16-40 in
     110
     111
               human lactoferrin
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     124 <212> TYPE: PRT
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     127 <220> FEATURE:
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RAW SEQUENCE LISTING

RAW SEQUENCE LISTING DATE: 02/06/2002 TIME: 14:18:36 PATENT APPLICATION: US/09/743,107A Input Set : A:\003300-723.ST25.txt Output Set: N:\CRF3\02062002\I743107A.raw 128 <221> NAME/KEY: MOD_RES 129 <222> LOCATION: (1) 130 <223> OTHER INFORMATION: ACETYLATION 132 <220> FEATURE: 133 <221> NAME/KEY: MOD_RES 134 <222> LOCATION: (25) 135 <223> OTHER INFORMATION: AMIDATION 137 <220> FEATURE: 138 <221> NAME/KEY: DISULFID 139 <222> LOCATION: (5)..(22) 141 <220> FEATURE:

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- of the sequence consisting of amino acids 16-40 in 144
- 145 human lactoferrin
- 147 <400> SEQUENCE: 3
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- 149
- 151 Gly Pro Pro Val Ser Cys Ile Lys Arg
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- 158 <212> TYPE: PRT
- 159 <213> ORGANISM: Artificial Sequence
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- 163 <222> LOCATION: (1)
- 164 <223> OTHER INFORMATION: ACETYLATION
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- 167 <221> NAME/KEY: MOD_RES
- 168 <222> LOCATION: (23)..(23)
- 169 <223> OTHER INFORMATION: AMIDATION
- 171 <220> FEATURE:
- 172 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or

10

- artificial origin, corresponding to a modification 173
- of the sequence consisting of amino acids 18-40 in 174
- human lactoferrin 175
- 177 <400> SEQUENCE: 4
- 178 Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro 1.5
- 181 Pro Val Ser Cys Ile Lys Arg
- 182 20
- 186 <210> SEQ ID NO: 5
- 187 <211> LENGTH: 23
- 188 <212> TYPE: PRT
- 189 <213> ORGANISM: Artificial Sequence

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- 191 <220> FEATURE:
- 192 <221> NAME/KEY: MOD_RES
- 193 <222> LOCATION: (1)

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Input Set : A:\003300-723.ST25.txt Output Set: N:\CRF3\02062002\I743107A.raw 194 <223> OTHER INFORMATION: ACETYLATION 196 <220> FEATURE: 197 <221> NAME/KEY: MOD_RES 198 <222> LOCATION: (23) 199 <223> OTHER INFORMATION: AMIDATION 201 <220> FEATURE: 202 <221> NAME/KEY: DISULFID 203 <222> LOCATION: (3)..(20) 205 <220> FEATURE: 206 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or artificial origin, corresponding to a modification 207 of the sequence consisting of amino acids 18-40 in 208 209 human lactoferrin 211 <400> SEQUENCE: 5 212 Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro 15 5 10 215 Pro Val Ser Cys Ile Lys Arg 20 216 220 <210> SEQ ID NO: 6 221 <211> LENGTH: 14 222 <212> TYPE: PRT 223 <213> ORGANISM: Artificial Sequence 225 <220> FEATURE: 226 <221> NAME/KEY: MOD_RES 227 <222> LOCATION: (1) 228 <223> OTHER INFORMATION: ACETYLATION 230 <220> FEATURE: 231 <221> NAME/KEY: MOD_RES 232 <222> LOCATION: (14) 233 <223> OTHER INFORMATION: AMIDATION 235 <220> FEATURE: 236 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or artificial origin, corresponding to a modification 237 of the sequence consisting of amino acids 18-31 in 238 239 human lactoferrin 241 <400> SEQUENCE: 6 242 Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg 243 5 1 247 <210> SEQ ID NO: 7 248 <211> LENGTH: 14 249 <212> TYPE: PRT 250 <213> ORGANISM: Artificial Sequence 252 <220> FEATURE: 253 <221> NAME/KEY: MOD_RES 254 <222> LOCATION: (1) 255 <223> OTHER INFORMATION: ACETYLATION 257 <220> FEATURE: 258 <221> NAME/KEY: MOD_RES 259 <222> LOCATION: (14)

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PATENT APPLICATION: US/09/743,107A

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263 <221> NAME/KEY: BINDING
264 <222> LOCATION: (5)..(9)
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267 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
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268
          of the sequence consisting of aa 18-31 in human
269
          lactoferrin; a lactam is formed between aa 5 and 9
270
272 <400> SEQUENCE: 7
273 Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg
274
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279 <211> LENGTH: 20
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281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
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285
          amino acids in positions 12-31 of the protein
286
          human lactoferrin
289 <400> SEQUENCE: 8
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                                          10
291
     1
293 Arg Lys Val Arg
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303 <220> FEATURE:
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306
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307
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311
     1
                      5
315 <210> SEQ ID NO: 10
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317 <212> TYPE: PRT
318 <213> ORGANISM: Artificial Sequence
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321 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
322
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323
324
          human lactoferrin
326 <400> SEQUENCE: 10
327 Ser Gln Pro Glu Ala Thr Lys
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Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

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DATE: 02/06/2002 TIME: 14:18:37

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF3\02062002\1743107A.raw

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L:903 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43

L:1773 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87

L:1796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88

L:1819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 L:1842 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90

L:2050 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99